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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,969	04/08/2005	Tomoyuki Nakano	KOD175B.001APC	7613

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EXAMINER	
CORDRAY, DENNIS R	

ART UNIT	PAPER NUMBER
1731	

NOTIFICATION DATE	DELIVERY MODE
01/30/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/508,969	**Applicant(s)** NAKANO ET AL.	
	Examiner Dennis Cordray	**Art Unit** 1731	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 January 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 5 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1-14*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

ERIC HUG
PRIMARY EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues on p 3, first full paragraph that the mere fact that the electric charge of Winiker is probably or possibly 2 meq/gm or less at a pH of 2 and 2 meq/gm or less at a pH of 12 is not sufficient to establish inherency. The argument is not convincing and, accordingly, the rejection of claims 1,3-5,7-14 under 35 U.S.C. 102(b) and 103(a) is maintained.

The disclosure of Winiker embodies copolymers of acrylamide having an acrylamide:ionic monomer ratio from 95:5 to 60:40 and comprises both anionic and cationic monomers in the ratio of cationic:anionic of 10:1 to 1:2 (col 6, lines 11-17). As recited on p 3, lines 5-7 of the instant Specification and repeated on page 3 of the current remarks, the inventive acrylamide polymer has both anionic and cationic groups in small quantities. No further definition of "small quantities" is given in the Specification. The next sentence (lines 7-9) states that the polyacrylamides containing small quantities of anionic groups and cationic groups have a larger quantity of amide groups that manifest strength through hydrogen bonding to pulp. No further definition of "a larger quantity" is given. Furthermore, the Examples in the instant Specification recite only numerical designations for the polyacrylamides, such as PAM-01, and fail to provide guidance as to what is intended by "small quantities" of anionic and cationic groups or "a larger quantity" of amide groups. The Examiner therefore interprets the meaning to be that the quantity of amide groups is larger than the quantity of either anionic or cationic groups. The acrylamide copolymer of Winiker, having at least 60 mole % and up to 95 mole % of acrylamide monomers, lies entirely within the disclosed range of the polyacrylamides of the instant invention, thus embodies acrylamide copolymers that inherently have the claimed properties of electric charge properties or, at least it would have been obvious to one of ordinary skill in the art to obtain the claimed electric charge properties. The evidentiary support of Alfrey Jr. et al is thus not required, but serves to further substantiate the inherency or obviousness of the claimed properties. The electric charge properties of the acrylamide copolymer of Winiker, as shown by the calculation provided at the bottom of page 2, significantly overlay the claimed values, therefore it would have been obvious to one of ordinary skil in the art to obtain the claimed electric charge for at least some of the embodiments of Winiker.

Applicant has argued on pp 2-3 that, based on the Examiner's reasoning and the cited prior art of Winiker and Alfrey Jr. et al, the electric charge of the amphoteric polyacrylamide of Winiker would exceed 2 meq/gm at a pH of 2 and 2 meq/gm at a pH of 12. Applicant has also admitted on p 3, first full paragraph that the electric charge of Winiker is probably or possibly 2 meq/gm or less at a pH of 2 and 2 meq/gm or less at a pH of 12, which admission appears contrary to the previous statement. The Examiner interprets the apparently opposing statements to mean that Applicant admits that the amphoteric polyacrylamide of Winiker probably or possibly has the claimed electric charge for some embodiments and does not have the claimed electric charge in other embodiments.

Applicant argues on pp 3-6 that the probability or possibility of the amphoteric polyacrylamide of Winiker having the claimed electric charge cannot be prima facia obvious over Winiker because:
1) a particular parameter must be recognized as a result-effective variable before determination of the optimum or workable ranges of the variable might be characterized through routine experimentation;
2) Winiker uses the polyacrylamides for structural strength and for flocculation-supressing properties and not for the density and optical properties of the instant invention, and doesn't recognize the density and optical properties;
3) by using the claimed polyacrylamides having the claimed electric charge, papers obtained have surprising properties of improved breaking length, higher opacity and brightness and good optical properties, without showing any increase in density, compared to papers made using polyacrylamides having electric charges outside of the claimed range.

Regarding reason 1), the rejection does not discuss result-effective variables or routine experimentation. Regarding reasons 2) and 3), it is well known in the art to use polymers in papermaking for multiple simultaneous effects, such as fixing agents, drainage and retention aids, flocculants, and wet and dry strength agents (if evidence is needed, see Auhorn et al, 6083348, col 2,lines 34-37). The embodiments of Winiker overlap the compositions and addition amounts of the instant invantion and therefore, result in the same structure of the papermaking furnish. Where the claimed and prior art apparatus or product are identical or substantially identical in structure or composition, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent.

Applicant argues in the last sentence of p 5 that the Alfrey, Jr. reference is unrelated to polyacrylamide. It is well known that copolymers comprising anionic carboxylic groups and cationic quaternary groups display more cationicity at low pH and more anionicity at high pH. The Alfrey, Jr. reference provides numerical validation of the changes for copolymers of the anionic and cationic species used in the instant invention and in the disclosure of Winiker. Dilution of the copolymer with nonionic acrylamide monomers adds weight to the polymer without altering the number of anionic or cationic groups, thus lowers both the anionic and cationic charge densities (electric charge). Alfrey, Jr. et al was simply used to provide a reasonable basis for calculation of the electric charge of the polymers of Winiker. Applicant has not refuted the basis of the calculation and has, in fact, admitted that the electric charge of Winiker is probably or possibly 2 meq/gm or less at a pH of 2 and 2 meq/gm or less at a pH of 12.

Applicant argues that Tashiro and Schade are irrelevant to the features recited in Claim 1. The refernces, as used, teach that bulky paper was known in the art at the time of the invention for use for both as photographic support (as disclosed by Winiker) and as printing paper, and further, that bulk is required for good ink penetration in a printing paper. The references do relate to the same art as the instant invention recited in the preamble of Claim 1, that of a bulky paper configured to be a printing paper or recording paper. The missing teaching of adding amorphous silica of the claimed bulk density to enhance the paper bulk is admitted in the instant Specification as known in the art.

The rejections are maintained.